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Commissioner	:	<u>John Bohn</u>
Admin. Law Judge	:	<u>Christine Walwyn</u>
DRA Project Mgr.	:	<u>Yoke Chan</u>
	:	<u> </u>



**DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**REPORT ON THE
COST OF CAPITAL**

**CALIFORNIA AMERICAN
WATER COMPANY
LOS ANGELES DISTRICT**

Test Year 2007

Application 06-01-005

For authority to increase water rates located in its
Los Angeles District serving Baldwin Hills, Windsor Hills, View Park, Ladera
Heights and vicinity, Duarte, Bradbury, portions of Irwindale, Monrovia and
vicinity, San Marino, Rosemead, portions of San Gabriel, Temple City and
vicinity, Los Angeles County.

San Francisco, California
May 5, 2006

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1 **CHAPTER 1: INTRODUCTION AND SUMMARY OF**
2 **RECOMMENDATIONS**

3 This report contains the recommendations of the Water Branch (WB) of the
4 Division of Ratepayers Advocates (DRA) regarding rate of return for the years
5 2007 through 2009 for the Los Angeles district of the California American Water
6 Company (Cal Am) in connection with A. 06-01-005. DRA recommends a return
7 on equity (ROE) of 9.69%, while Cal Am requests an ROE of 11.60% for 2006 –
8 2009. DRA and Cal Am use the same methodology to determine the embedded
9 cost of long-term debt. The difference between DRA’s and Cal Am’s estimates is
10 the result of DRA using a more recent DRI forecast of Aa-rated public utility bond
11 yields. DRA recommends a long-term debt rate of 6.41% for the years 2007 –
12 2009 while Cal Am requests rates of 7.12%, 6.90%, 6.91%, and 6.94% for the
13 years 2006 – 2009. DRA recommends a rate of return (ROR) for Cal Am of 7.76
14 for the years 2006-2009. These returns compare to those requested by Cal Am of
15 8.70%, 8.83%, 8.86%, and 8.93%. The small difference that exists between Cal
16 Am and DRA regarding capital structure results from DRA recommending a
17 single ROR , determine for the Test Year 2007, and applied to 2008 and 2009. A
18 summary of Cal Am’s request and DRA’s recommendations is provided in Table
19 1-1.

Table 1-1

California American Water
Comparison of Requested and DRA Recommended
Rate of Return
For the Years 2007 through 2009

	California American Water			DRA Recommended		
	Capital Structure	Cost Factor	Weighted Cost	Capital Structure	Cost Factor	Weighted Cost
Test Year 2007						
Long-Term Debt	58.97%	6.90%	4.07%	58.97%	6.41%	3.78%
Common Equity	41.03%	11.60%	4.76%	41.03%	9.69%	3.98%
Total	100%		8.83%	100%		7.76%
Test Year 2008						
Long-Term Debt	58.39%	6.91%	4.03%	58.97%	6.41%	3.78%
Common Equity	41.61%	11.60%	4.83%	41.03%	9.69%	3.98%
Total	100%		8.86%	100%		7.76%
Test Year 2009						
Long-Term Debt	57.21%	6.94%	3.97%	58.97%	6.41%	3.78%
Common Equity	42.79%	11.60%	4.96%	41.03%	9.69%	3.98%
Total	100%		8.93%	100%		7.76%

CHAPTER 2: QUANTITATIVE ANALYSIS

A. INTRODUCTION

The market's required return on equity is not directly observable. Implicit in stock prices, however, are investors' expected returns. Analytical techniques based on finance theory have been developed to infer the return on equity from stock-price data. DRA uses two financial models – Discounted Cash Flow (DCF) and Risk Premium (RP) -- to estimate investors' expected ROE for Cal Am.

B. Comparable Group

DRA has determined a range of ROEs for Cal Am by applying the DCF and RP Models to a group of comparable water utilities. Results derived from the DCF may be biased and less reliable when applied to a specific company, such as one with unusually high or unusually low dividend growth rates. Applying the DCF and RP Models to a larger sample, such as DRA's comparable group, serves to correct such biases. DRA chose six utilities as the comparable group using the following criteria: (1) water operations that account for at least 70% of the utility's revenues and (2) the utility's stock is publicly traded. This same comparable group has been used by DRA in other prior and current analyses.

Table 2-1 shows the financial characteristics for the comparable group of companies: American States Water, California Water Service, Connecticut Water Service, Middlesex Water, Aqua America, and San Jose Water. Cal-Am's comparable group includes the previously mentioned companies and Southwest Water. DRA does not include Southwest Water because it does not meet DRA's criteria (1). In determining its estimated Beta (β) for its Capital Asset Pricing Model (CAPM), Cal-Am also included Artesian Resources, Pennichuck Corporation, and York Water to its initial comparable group. DRA does not currently include these companies in its comparable group since forecasted growth rates are not available for them at this time.

1 In the past some water utilities have rebutted the use of staff's data and models by taking
2 individual components out of context to supposedly illustrate that staff's results are not
3 reasonable. Since staff bases its recommended ROE on an average of results using
4 various components (all described in the following discussion), taking an individual
5 component and calculating the models in such a "vacuum" is incorrect. This
6 "recalculation" of staff's models in this way is improper and cannot be applied to the
7 results calculated in this report.

8 **C. Discounted Cash Flow Model**

9 The DCF Model reflects the current market price of a share of common stock
10 equal to the present value of the expected future stream of dividends and the future sale
11 price of a share of stock, discounted at the investor's discount rate. The expected rate of
12 return is expressed by the discount rate that equates the market price of the stock to the
13 present value of the flow of cash receipts. The DCF Model solves for the investor's
14 discount rate as follows:

$$15 \quad r = D_1/P_0 + g,$$

16 where:

17 r = the investor's expected return on equity,

18 D_1 = the expected dividend in the next period,

19 P_0 = the market price in the current period, and

20 g = the expected future dividend growth rate.

1) Dividend Yield

The dividend yield depends on next year's dividends per share¹ and the current stock price. The next year's expected dividend yield, Div_1 / P_o , can be estimated by multiplying the current dividend yield, Div_o / P_o , by one plus the expected growth rate, g .

Table 2-2 shows the current annualized dividend yields for the comparable group. The average yield is 2.82% over the most recent three-month period of December 2005 through February 2006, 2.76% for the most recent six-month period of September 2005 through February 2006, and 2.85% for the twelve-month period of March 2005 through February 2006. Three different periods are used in order to mitigate period specific biases and to consider both current and long-term trends.

2) Growth Rates

The DCF Model assumes that dividends grow at a constant rate, g , and continue growing at that rate for the foreseeable future. In order to balance the historical and forecasted growth rates, DRA examined three types of growth rates to estimate future dividend growth: (1) historical dividend and earnings growth rates, (2) sustainable growth rates, and (3) forecasted growth rates.

(a) Historical Growth Rates

(i) *Earnings and Dividend Growth*

Historical growth rates can provide a useful indication about future growth when past conditions can be reasonably expected to continue. Table 2-3 shows the average historical earnings and dividend growth rates of the comparable group for the period

¹ Adjusted to account for the quarterly compounding of the dividend in order to account for the time value of money. If the dividend were paid only once a year, then it would be larger, to account for the time value of money. Since the dividend is paid quarterly, the total of those 4 payments are less than what one yearly payment would have been, since the investor has the opportunity to invest it and earn on it.

1 1996 through 2005, with both five- and ten-year averages. Even though dividend per
2 share growth is preferable, since an exact correlation can be made to other components in
3 the DCF Model (dividends are part of the dividend yield calculation), earnings are
4 necessary to generate dividends, so earnings growth is also included in this analysis.

5 Concerns have been raised in other cases that the historical growth rates used by
6 DRA are not similar to those being forecasted. Therefore the historical growth rates are
7 not indicative of future growth. One only has to look at some of the component years of
8 the historical earnings growth rates listed on Table 2-3, for example, 1996, 2001, 2002,
9 and 2004, to see that they are in a relative range comparable to those forecasted growth
10 rates on Table 2-4.

11 The average historical five- and ten-year earnings growth rates calculated by DRA
12 are 6.50% and 5.35%. The average historical five- and ten-year dividend growth rates
13 calculated by DRA are 2.44% and 2.43 %.

14 (ii) *Sustainable Growth*

15 The expected future dividend growth rate can also be measured by examining the
16 sustainable growth rate, which is equal to the product of the retention ratio and the book
17 return on equity. Growth in earnings and dividends can only be sustained if part of
18 earnings is reinvested by the company. DRA calculates sustainable growth per the
19 method discussed in The Cost of Capital – Estimating the Rate of Return for Public
20 Utilities,² which states that sustainable growth is measured as “[T]he rate of return on
21 book equity, ROE, times the proportion of earnings that is retained within the firm, ...
22 instead of being paid out as dividends.....The sustainable growth rate, ... was
23 calculated by multiplying the five-year average book return on equity by the earnings

² The Cost of Capital – Estimating the Rate of Return for Public Utilities, by A. Lawrence Kolbe and James A. Read Jr., with George R. Hall, 1985.

retention rate (the retention rate is one minus the dividend payout rate).”³ The group’s average five-year sustainable growth rate is 2.83% and the ten-year sustainable growth rate is 2.98% (Table 2-3).

(iii) Overall Historical Growth

Based on the average historical earnings, dividend, and sustainable growth rates, the average historical growth is 3.75%.

(b) Forecasted Growth Rates

DRA also considered several forecasted earnings growth rates, including Zack’s, First Call, Value Line, and Reuters, as shown on Table 2-4. DRA took a weighted average of the forecasts, based on the number of companies for which each organization provides a forecast.⁴ This average is 8.26%.

(c) Conclusion - Growth Rate

Based on the above discussion, DRA has determined an average growth rate of 6.01%.⁵

3) Results of DCF Model

The results of the DCF Model using data from the comparable group are summarized in Table 2-5 and the formula referred to on page 2-2. Based on current dividend yields (Table 2-2) and an expected dividend growth of 6.01%, the expected three-month dividend yield for the comparable group is 2.98%, the expected six-month

³ Ibid., pages 55 and 99.

⁴ DRA weights the average of each forecaster by taking the number of its data points, dividing by the total number of data points, and then multiplying this by the average. This operation is performed for each column, and then totaled to determine the overall weighted average of the forecasts.

⁵ Average of the Average Historical Growth Rate of 3.75% and Average Forecast Growth Rate of 8.26%.

dividend yield is 2.92%, and the expected twelve-month dividend yield is 3.01%. Combining the expected three-, six-, and twelve-month yields with the expected growth rates produces expected returns on equity of 9.00%, 8.93%, and 9.03%, with an average of 8.98%. Cal Am estimates 9.8% for its Constant Growth DCF model and 8.9% for its Multi-Stage DCF model.

D. Risk Premium Model

The Risk Premium Model recognizes that investors have different requirements regarding risk and return for common stocks as compared to bonds. The RP equation is written as follows:

$$k_t = k_d + RP,$$

where **k_t** is the cost of equity, **k_d** is the cost of debt, and **RP** is the Risk Premium.

This model is based upon the assumption that investments in common stock are riskier than investments in long-term debt, since stockholders are but residual claimants to earnings and assets in the event of liquidation. As a result, investors holding common stock expect higher returns. In order to develop the required return on equity, this greater risk is stated as a premium, which is added to the estimated cost of long-term debt. As a result of the variance in historical premiums, an average risk premium is calculated over an extended period of time, five and ten years in this case.

DRA applied the RP Model to the same comparable group used in the DCF model in order to determine the appropriate return on equity for Cal Am. DRA used historical earned ROE's for the comparable group in order to estimate the stockholder's average expected return on equity. These returns are easily accessible to the investor (annual reports and financial web sites) and require no computation. An alternative is to use the authorized ROE, but this is rejected by DRA because the authorized ROE is not always an accurate measure of what is expected by investors. The authorized ROE can be distorted by the effect of settlements (the ROE could be inflated or deflated to account for

trade-offs in other areas of a settlement) as well as by penalties imposed or premiums applied to an authorized ROE by a Commission. The annual yields on 10-year and 30-year Treasury bonds were subtracted from the comparable group's average returns on equity for each year to determine the annual risk premium.

1) Results of Risk Premium Model

Table 2-6 presents forecasted interest rates for the test period, taken from Data Resources Inc. (DRI) report for March 2006. DRI has consistently been accepted by the Commission for use in determining the cost of capital.⁶ For the period 2006 to 2009, the average forecasted rate for 10-Year Treasury bonds is 5.20% and the average forecasted rate for 30-Year Treasury bonds is 5.41%.

Table 2-7 provides the results of the Risk Premium Model for DRA's comparable group. The average premiums are 5.30% and 4.86% for the ten-year period and 5.45% and 4.77% for the five-year period, based upon 10-year Treasury bond yields and the 30-year Treasury bond yields, respectively.

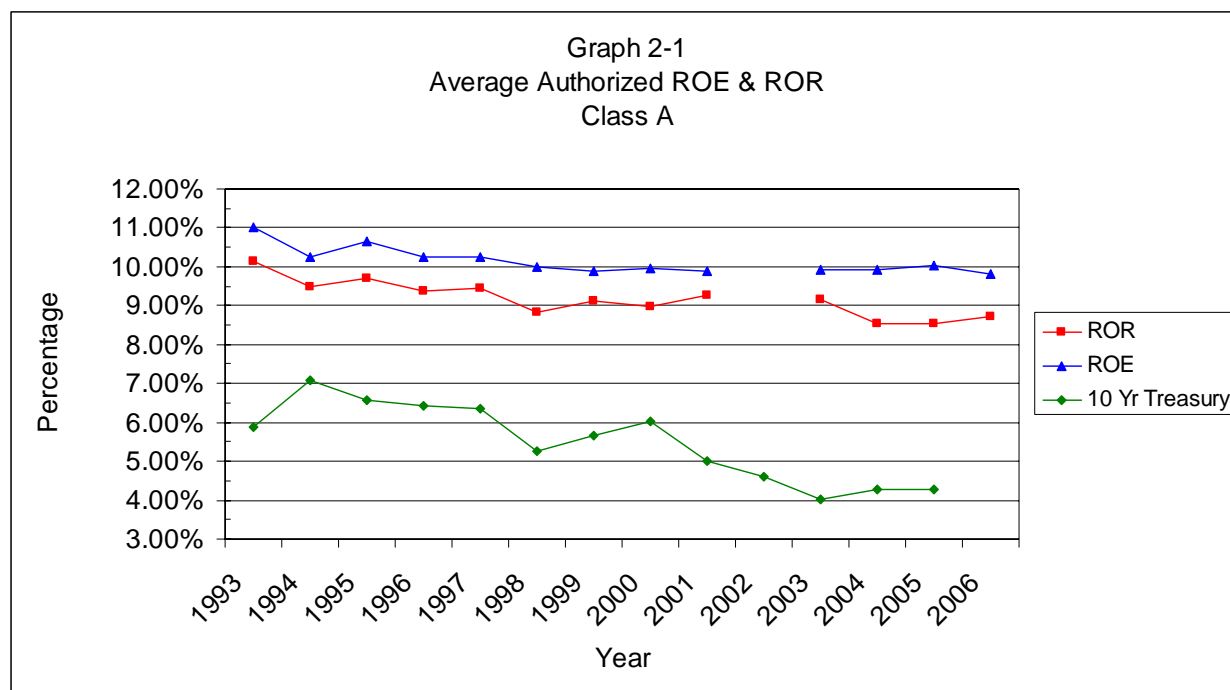
To derive return on equity, DRA combined the average equity risk premiums with the average interest rate forecasts for the test period. Based on the 10-year risk premiums, DRA calculated an expected return on equity of 10.27% for the 30-year Treasury bond yield and 10.50% for the 10-year Treasury bond yield. Using the 5-year risk premiums produced expected returns of 10.65% for the 10-year Treasury bond yield and 10.18% for the 30-year Treasury bond yield. Combining these results, DRA calculated an average ROE of 10.40%.

E. Summary of Model Results

Table 2-8 summarizes the results of the DCF and RP models prepared by DRA. Averaging the results of these financial models produces an expected return on equity of

⁶ 38 CPUC 2nd at pages 233 & 238, Southwest Gas Corp., et al (1990) and 46 CPUC 2nd at pages 319, (continued on next page)

1 9.69%. Cal Am's four models yield an average of 10.4% before any adjustments are
2 made. For comparison purposes Graph 2-1 is shown below. This graph shows the
3 average authorized ROEs and RORs for Class A water utilities since 1993. It should be
4 noted that Cal Am's requested ROE of 11.6% exceeds any authorized ROE for a Class A
5 water utility since 1993.



(continued from previous page)
360-361, Pacific Gas & Electric Co. (1992).

Table 2-1
California American Water
Comparable Group
2005

Company	S&P Bond Rating	Average Common Equity Ratio	Market to Book
American States Water	A-	50.9%	2.25
California Water Service	A+	51.4%	2.75
Connecticut Water Service	A	55.6%	2.17
Middlesex Water	A-	43.6%	2.16
Aqua America	A+	47.3%	4.86
SJW Corp.	N/A	56.8%	2.39
Average	A	50.9%	2.76

Source: S&P Earnings Guide, SEC 10K
Annual Report to CPUC

Table 2-2
California American Water
Current Annualized Dividend Yield
Comparable Group

Company	3-Month Dividend Yield %	6-Month Dividend Yield %	12-Month Dividend Yield %
American States Water	2.85	2.82	3.01
California Water Service	2.97	3.05	3.14
Connecticut Water Service	3.48	3.45	3.41
Middlesex Water	3.78	3.50	3.56
Aqua America	1.49	1.35	1.44
San Jose Water	2.36	2.39	2.52
Average	2.82	2.76	2.85

1 Current Yield = Do/Po

2 Source: Yahoo Finance

Table 2-3
California American Water
Average Historical 5- & 10-year Growth Rate
Comparable Group
1996-2005

Year	Earnings Growth %	Dividend Growth %	Sustainable Growth %
1996	15.06	2.14	3.68
1997	2.80	2.49	3.54
1998	-0.08	2.77	3.00
1999	5.56	2.33	3.17
2000	-2.33	2.39	2.31
2001	8.32	2.57	2.62
2002	8.37	3.09	3.10
2003	-4.55	2.99	2.13
2004	17.89	2.69	2.99
2005	2.45	0.86	3.30
5-Year (2001-2005)	6.50	2.44	2.83
10-Year (1996-2005)	5.35	2.43	2.98
Overall Historical Average			3.75

1

Table 2-4
California American Water
Forecasted Earnings Growth Rates

Company	ZACK'S	First Call	Valueline	Reuters
	%	%	%	
American States Water Co.	6.00	6.00	12.00	4.50
California Water Service	9.00	9.00	8.50	10.00
Connecticut Water Service	-	-	-	-
Middlesex Water	6.00	6.00	-	6.00
Aqua America	9.30	9.50	13.00	9.07
SJW Corp.	-	-	-	-

**Overall Weighted Average
of Forecasted Growth Rates**

8.26

Source: Zack's 03/06
 First Call 03/06
 Valueline 01/06
 Reuters 03/06

Table 2-5
California American Water
Discounted Cash Flow Model Summary
Comparable Group

Component		Comparable Group %
<u>3-Month Current Yield</u>	1/	2.82
Growth Rate	2/	6.01
Expected Yield	3/	2.99
ROE	4/	9.00
<u>6-Month Current Yield</u>	1/	2.76
Growth Rate	2/	6.01
Expected Yield	3/	2.93
ROE	4/	8.93
<u>12-Month Current Yield</u>	1/	2.85
Growth Rate	2/	6.01
Expected Yield	3/	3.02
ROE	4/	9.03

1/ Current Yield = D_0/P_0

2/ Growth Rate = g

3/ Expected Yield = $D_1/P_0 = D_0/P_0 * (1 + g)$

4/ ROE = $D_1/P_0 + g$

Table 2-6
California American Water
Forecast of Interest Rates - Average Year

		Forecast Date	Forecast 2006 %	Forecast 2007 %	Forecast 2008 %	Forecast 2009 %	<i>Average for 2007-2009 %</i>
Description							
	30-Year Treasury Bonds	DRI - 03/06	4.71%	5.09%	5.37%	5.76%	5.41%
1	10-Year Treasury Bonds	DRI - 03/06	4.70%	4.97%	5.13%	5.50%	5.20%

Table 2-7
California American Water
Risk Premium Analysis
Comparable Group

Year	Return on Equity 1/ %	Average Yearly Yields		Risk Premium	
		30-Year T-Bond %	10-Year T-Bond %	30-Year T-Bond %	10-Year T-Bond %
1995	11.12	6.88	6.57	4.24	4.55
1996	11.93	6.70	6.44	5.23	5.49
1997	11.77	6.60	6.35	5.17	5.42
1998	10.97	5.58	5.26	5.39	5.71
1999	10.90	5.87	5.65	5.03	5.25
2000	9.85	5.94	6.03	3.91	3.82
2001	10.12	5.49	5.02	4.63	5.10
2002	10.53	5.41	4.61	5.12	5.92
2003	9.13	5.02	4.01	4.11	5.12
2004	9.55	5.12	4.27	4.43	5.28
2005	10.13	4.56	4.29	5.57	5.84
10-Year Average Premium				4.86	5.30
5-Year Average Premium				4.77	5.45
Forecasted Interest Rates for 2006-2009				5.41	5.20

Projected Returns on Equity

10-Year Average	10.27	10.50
5-Year Average	10.18	10.65

1/ Earned ROE is used because it is most accessible to the investor.

* From Year 2002 on, the historical from the Federal Reserve is for 25 year plus long term bonds

Table 2-8
California American Water
Summary of Model Results
Comparable Group

Discounted Cash Flow Model		
Growth Rate		<u>6.01</u>
Three-Month ROE		9.00
Six-Month ROE		8.93
Twelve-Month ROE		9.03
<i>DCF Average</i>		8.98
Risk Premium Model		
	<u>5-Year</u>	<u>10-Year</u>
30-Year Treasury Bond	10.18	10.27
10-Year Treasury Bond	10.65	10.50
<i>RP Average</i>		10.40
<i>Return on Equity Average</i>		9.69

CHAPTER 3: RISK AND ECONOMIC CONDITIONS

A. Overview

In Chapter Two of this report, DRA determined that the common equity investor expects to earn an average return of 9.69%. This determination is the result of a quantitative analysis using market-based financial models and financial data from a group of water companies of comparable risk. In addition to this quantitative analysis, DRA assesses the level of business and financial risk faced by Cal Am. Also included in the present chapter is DRA's recommended capital structure.

A company's total risk is the combination of business risk and financial risk. Business risk may be defined as the uncertainty inherent in the projections of future operating income relating to the fundamental nature of the company's business. Given the nature of the industry, the business risk of a regulated utility consists primarily of regulatory risk. Financial risk relates to the amount of debt in the capital structure; the larger the debt portion, the greater the financial risk.

B. Regulatory Risk

A multitude of mechanisms are provided by the Commission which reduce regulatory risk and protect earnings from inflation, regulatory lag, estimating errors, input price variability, loss due to catastrophic events, Safe Drinking Water Act (SDWA) compliance, and reduce operating leverage by 50%. These mechanisms include - Balancing accounts for Purchased Water, Purchased Power, and Pump Taxes; Memorandum Accounts for Catastrophic Events; Future Test Years; Memorandum Accounts for SDWA compliance; 50% Fixed Cost Recovery; and Construction Work in Progress in Rate Base.

1 **1) WRAM**

2 If this Commission allows Cal Am to implement its proposed Water
3 Revenue Adjustment Mechanism (WRAM) it will in effect allow the company to
4 significantly reduce its regulatory risk, and business risk. In the event that Cal Am
5 is allowed to implement a WRAM it would significantly reduce nearly all normal
6 revenue risk. Removing all normal business risks to revenue would in effect turn
7 its equity shares into risk free bonds. Commission policy is that when utility risk
8 changes the utility's rate of return needs to be reexamined, in order to adjust its
9 authorized rate of return to reflect the change in risk. If Cal Am's requested
10 WRAM is adopted; it would significantly reduce its normal business risk, as well
11 as its regulatory risk. Accordingly DRA recommends that the Commission adjust
12 Cal Am's authorized rate of return on equity, decreasing it by 328 basis points.
13 DRA derived this adjustment by taking the spread between Cal Am's long term
14 debt (6.41%), and DRA's proposed cost of Cal Am's equity (9.69%).

15 **2) Elimination of Earnings Test**

16 Cal Am's regulatory and business risk has been reduced as a result of the
17 elimination of the earnings test. The Commission has recently eliminated the
18 earnings test for the recovery of the water supply balancing account under
19 collections.⁷ The elimination of the earnings test will allow water utilities to
20 recover the full amount of the under collected balance regardless of the level of
21 utility earnings above the Commission authorized rate of return. The removal of
22 the earnings test will now allow the water utilities to further enhance profits and
23 basically eliminate their regulatory risk associated with the recovery of water
24 supply costs.

⁷ D.06-04-037, mimeo, p. 2.

C. Financial Risk

Financial risk relates to the amount of debt used in the capital structure. The greater the ratio of debt to equity, the greater the financial risk. For regulated utilities, the percentage of debt and equity included in the capital structure has a direct impact on rates charged ratepayers. A balanced capital structure should provide financial stability to a utility and produce reasonable rates for its customers, as well as continuity of service.

Cal Am has proposed a capital structure consisting of long-term debt and common equity. Cal Am's projected average common equity ratio for the years 2006 – 2009 is 41.90%, which is lower than the comparable group's average of 50.90%. DRA concurs with Cal Am's capital structure. By maintaining this capital structure Cal Am has a lower ROR as the result of its lower average common equity ratio than it would have if it had the comparable group's average common equity ratio. Maintaining this lower common equity ratio is a choice made by Cal Am and no adjustment need be made to reflect the increased financial risk associated with the increased debt ratio. As noted below, Cal Am maintains a good credit rating and does not appear to have difficulty attracting capital at reasonable rates.

1) Standard & Poor's Assessment

A company's total risk (business risk plus financial risk) is indicative of its overall financial integrity and ability to attract capital. Standard & Poor's (S&P), a rating agency used by DRA, evaluates a company's total risk in order to assign a credit rating, which is a direct measure of capital attraction. S&P's evaluation includes a subjective analysis of business risk, including such things as managerial quality and regulatory environment. A quantitative analysis is also done, consisting of a group of financial ratios designed to measure how well a company can generate earnings and cash flow to meet its debt obligations. These ratios are

1 a mix of measures relating to both business and financial risk. A rating of “AAA”
2 through a “BBB” is considered “investment grade”. Any rating lower than a
3 “BBB” would be considered speculative and more susceptible to adverse
4 circumstances or economic conditions.

5 S&P does not rate Cal Am, but they do rate American Water Capital Corp
6 (affiliate that Cal Am issues debt from) as well as RWE and Thames, the owners
7 of American Water Works (Cal Am’s parent). These entities are rated A-, A+, and
8 A, respectively. RWE has announced plans to spin-off its ownership of American
9 Water Works through an initial public offering (IPO). At this time DRA cannot
10 determine what impact this will have on the overall company’s debt rating.

11 **D. Conclusion**

12 Cal Am’s low business risk and healthy financial ratios based on S&P
13 benchmarks are indications of a well-managed company. Cal Am takes advantage
14 of that low business risk by maintaining a higher ratio of long-term debt to total
15 capital. This is another indication of good management, as it lowers the overall
16 cost of capital and benefits ratepayers

1 **CHAPTER 4: COMMENTS ON CAL AM’S METHODOLOGY**

2 **A. Introduction**

3 Cal Am has presented DCF and CAPM Models in support of its requested
4 ROE of 11.60%. DRA does not agree with the following components of
5 Cal Am’s analysis:

- 6 • Leverage Adjustment,
- 7 • Comparable Group Water Companies,
- 8 • Stock Financing Growth Term.

9 **B. Leverage Adjustment**

10 Cal Am requests that an adjustment be made to its ROE request to
11 recognize that Cal Am’s capital structure has greater leverage than the comparable
12 group.⁸ DRA did not add a premium to the return on equity in the current case as
13 it has in some past cases. Consistent with DRA’s position in recent years DRA
14 believes the Commission should determine if Cal Am gets a premium based on its
15 common equity ratio, not ratepayer advocates. It is Cal Am’s choice to carry a
16 lower common equity ratio and do it without adverse affect to the company. It is
17 not appropriate for DRA to recommend a premium, since a main concern of DRA
18 is lower cost for ratepayers.

19 Cal Am adds 270 basis points to its estimates of ROE to reflect what it
20 believes is financial risk associated with its level of debt. To support this
21 adjustment Cal Am “relevers” β and estimates that its cost of equity is 270 points

⁸ A.06-01-005, Ex. E, Reiker, p. 36.

1 higher than the cost of equity of the sample water utilities. This 270 basis point
2 adder amounts to an additional 30% for the cost of equity. This Commission has
3 consistently rejected the “relevering” of β as part of the methodology to estimate
4 the cost of equity. DRA notes that Cal Am’s initial point estimate of 10.4% is
5 closer to currently approved ROE’s of 10% for water companies.

6 **C. Comparable Group Selection**

7 As noted in Chapter 2, Cal Am includes Southwest Water Company in its
8 comparable group and DRA does not include Southwest Water Company. DRA
9 does not include Southwest Water Company in its analysis because less than 70%
10 of its revenues are from its regulated water business.⁹ This difference in
11 comparable groups explains in part the difference between DRA’s and Cal Am’s
12 estimates. In calculating an estimate for Beta (β) for use in its CAPM analysis Cal
13 Am includes three additional companies, Pennichuck Corporation, Artesian
14 Resources, and York Water Company. These three companies are not included in
15 the average β calculation since they were not statistically significant.

16 **D. Stock Financing Growth Term**

17 Once again Cal Am includes an additional stock financing growth term
18 component called VS Growth in its calculation of Sustainable Growth, while DRA
19 does not include this additional component.¹⁰ The v variable represents the
20 fraction of funds raised from common stock sales that accrues to existing
21 shareholders, the s variable represents the expected rate of increase in common
22 equity from stock sales. DRA calculates sustainable growth per the method
23 discussed in The Cost of Capital – Estimating the Rate of Return for Public

⁹ Southwest Water Company, Form 10-K, filed 3/16/2006, page 3.

¹⁰ A.04-04-040 & A.04-04-041.

1 Utilities,¹¹ which states that sustainable growth is measured as “[T]he rate of
2 return on book equity, ROE, times the proportion of earnings that is retained
3 within the firm, ... instead of being paid out as dividends. ... The sustainable
4 growth rate, ... was calculated by multiplying the five-year average book return on
5 equity by the earnings retention rate (the retention rate is one minus the dividend
6 payout rate).”¹² In the above referenced book, the authors also discuss the
7 possible use of issuance cost in the determination of the return on equity. Cal Am
8 argues that VS growth “reflects additional expected growth in the per share book
9 value of the sample companies”. Cal Am cites recent correspondence with Dr. A.
10 Lawrence Kolbe that further supports its position on the inclusion of the VS
11 growth term.

12 Consistent with its previous and current methodology DRA does not
13 include the VS growth term in its models. DRA points out that inclusion of the
14 VS growth term and the multi-stage DCF results in Cal Am’s lowest estimate of
15 ROE. DRA believes that if the finance community is now of the opinion that the
16 VS growth term should be included in DCF models the Commission should open a
17 proceeding to evaluate this issue.

¹¹ The Cost of Capital – Estimating the Rate of Return for Public Utilities, by A. Lawrence Kolbe and James A. Read Jr., with George R. Hall, 1985.

¹² Id., at pages 55 and 99.

1 **E. Long-Term Debt**

2 DRA and Cal Am use the same methodology to determine the embedded
3 cost of long-term debt. The difference between DRA's and Cal Am's estimates is
4 the result of DRA using a more recent DRI forecast of Aa-rated public utility bond
5 yields. DRA estimates an embedded cost of debt of 6.41%, 6.42%, and 6.43% for
6 2007 – 2009. Cal Am estimates 6.90%, 6.91%, and 6.94% for 2007 – 2009.

CHAPTER 5: COST OF LONG-TERM DEBT

A. Determination of Cost of Long-Term Debt

The cost of long-term debt consists of interest and issuance expenses for all long-term bonds and notes, both outstanding and projected for the test period. The majority of the cost is derived from embedded costs, with the balance consisting of estimated costs for projected new debt issues. Since debt is a contractual arrangement, the terms for existing bonds are known. The costs of new debt issues are dependent, however, on forecasts of interest rates. The effective cost of long-term debt is computed as the ratio of the annual charge for the balance outstanding divided by the net proceeds of the balance outstanding.

B. Long-Term Debt Cost in the Test Period

Cal Am has projected new issues of long-term debt of more than \$197 million during 2006 – 2009, \$143 million in 2006, and \$18 million in 2007, and \$36 million in 2008. Cal Am has estimated the cost of new debt by using the October 2005 DRI forecasts of Aa-rated public utility bond yields. These rates were provided by DRA staff. The cost of new debt is 6.39%, 6.58%, and 6.84% in 2006, 2007, and 2008, respectively. This results in Cal Am's cost of long-term debt of 7.12%, 6.90%, 6.91%, and 6.94% in 2006, 2007, 2008, and 2009.

DRA uses a March 2006 DRI forecast of Aa-rated public utility bond yields. (Table 2-6) The cost of new debt is 5.87%, 6.26%, and 6.42% and 6.77% in 2006, 2007, 2008, and 2009 respectively. On this basis, DRA forecasts the cost of long-term debt for Cal Am of 7.12% in 2006, 6.41% in 2007, 6.42% in 2008, and 6.43% in 2009. DRA uses the 2007 test year value in its final determination of recommended ROR for the test years.

1 **QUALIFICATIONS AND PREPARED TESTIMONY OF**
2 **PATRICK E. HOGLUND**

3
4
5
6 Q.1. Please state your name and business address.

7 A.1. My name is Patrick E. Hoglund. My business address is 505 Van
8 Ness Avenue, San Francisco, California.

9 Q.2. By whom are you employed and in what capacity?

10 A.2. I am employed by the California Public Utilities Commission - DRA
11 Water Branch - as a Utilities Engineer.

12 Q.3. Please briefly describe your educational background and work
13 experience.

14 A.3. I am a graduate of the University of California, Berkeley, with a
15 Bachelor of Science Degree in Industrial Engineering and
16 Operations Research. I am also a graduate of the University of
17 Rochester, William E. Simon School of Business with a Master of
18 Business Administration Degree with concentrations in Finance and
19 Corporate Accounting. I am a licensed professional Industrial
20 Engineer.

21 I have been employed by the California Public Utilities Commission
22 since 2005. My current assignment is within DRA – Water where I
23 work on Class A General Rate Cases. From 1999 through August
24 2004, I was a Senior Rates Analyst at Pacific Gas and Electric
25 Company, where I worked on a variety of revenue requirements
26 issues related to natural gas. From 1990 through 1997, I was

1 employed by the California Public Utilities Commission. During
2 this time I worked on small water utility rate cases, large water
3 utility rates cases, and also worked in the Telecommunications and
4 Energy Branches of the former Commission Advisory and
5 Compliance Division, as well as in the Division of Ratepayer
6 Advocates.

7 Q.4. What are your responsibilities in this proceeding?

8 A.4. I am responsible for DRA's Water Branch Report On the Cost of
9 Capital For California American Water Company Los Angeles
10 District.

11 Q.5. Does this conclude your prepared testimony?

12 A.5. Yes, it does.

13

14

15

16